



Salt Lake City, UT
February 18, 2016



Updates on SWGDAM, NCFS, OSAC, and Recent NIST Activities

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National Institute of Standards and Technology

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Vice-Chair, National Commission on Forensic Science

Member, OSAC Biology/DNA Scientific Area Committee

OSAC Liaison to SWGDAM

Associate Editor, *Forensic Science International: Genetics*

SWGDM.org website

Scientific Working Group on DNA Analysis Methods (SWGDM)

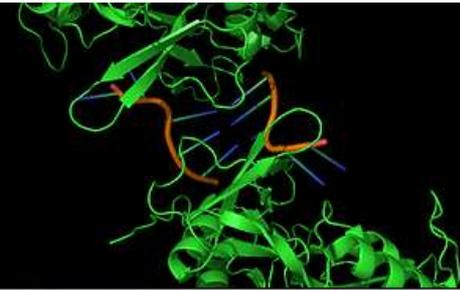
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CONTACT



SWGDM Chair
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SWGDM Mission Statement

The Scientific Working Group on DNA Analysis Methods, known as SWGDM, serves to evaluate forensic biology methods, protocols, training, and research to enhance forensic biology services as well as provide recommendations to the FBI Director on quality assurance standards for forensic DNA analysis.



Upcoming Meetings

SWGDM Regular Meeting
January 12-14, 2016
[Preliminary Agenda](#)



SWGDM Photo Taken at **July 2015** Meeting



- SWGDAM meets semi-annually (January & July)
- ~80 people participating at each meeting

SWGDM Committees & Working Groups

In my role as OSAC liaison to SWGDAM, I have the opportunity to briefly visit each group and learn about their activities

	Committees/Working Groups	Primary Focus
1	Autosomal STR Interpretation	Revising 2010 guidelines to help mixture interpretation (89 page document with examples is close to completion)
2	CODIS	Discussing automated hit counting, threshold-based searching, and revisions to database QAS
3	Enhanced Detection Methods & Interpretation (EDMI)	Preparing document on contamination prevention and control
4	Quality Assurance	Preparing draft revisions to the forensic QAS
5	Rapid DNA	Reviewing rapid DNA progress (instruments and legislation), discussing potential pilot studies
6	Y-STR	Working on Y-STR mixture guidelines
7	Next-Gen Sequencing WG	Monitoring development of NGS
8	SAFER Sexual Assault WG	Providing recommendations to NIJ on laboratory processing of sexual assault evidence kits
9	Ad Hoc “Committee of Detail”	Preparing QAS clarification document for NDIS to handle re-interpretation of historical data

Recent SWGDAM Meeting

July 14-16, 2015

- **Main session:** History of FBI DNA activities (Dwight Adams, Tom Callaghan), TWGDAM/SWGDAM (Ken Konzak, Dave Coffman), DNA Identification Act of 1994 (Dawn Herkenham), Quality Assurance Standards (Doug Hares, Jocelyn Carlson)
- **Committee Work (all-day Wednesday)**
- **Roundtable:** FBI allele frequency changes (Tamyra Moretti, John Buckleton), MN missing persons case (Ann Gross), DNA from cartridge cases (Shawn Montpetit), GlobalFiler validation (Jason Kokoszka), TrueAllele test scandal (Ray Wickenheiser), Differential extractions (Bill Hudlow), Familial searching (Gary Molina), New York State Forensic Science Commission (Dawn Herkenham)
- **Committee updates:** CODIS (Darrell Oubre), EDMI (Dixie Peters), Next-Gen (John Tonkyn), QA (Jocelyn Carlson), Rapid DNA (Taylor Scott), Y-STR (Tamyra Moretti), Autosomal STR Interpretation (Joel Sutton)
- **Other updates:** NIJ (Minh Nguyen), ENFSI DNA Working Group (Roman Hardil), NIST Applied Genetics Group (Mike Coble & Pete Vallone), Legislative (Dawn Herkenham), UK Home Office (Adam Shariff), OSAC-NCFS-NIST (John Butler)
- **12 page meeting report** is available on SWGDAM website at http://media.wix.com/ugd/4344b0_99742207c78344c7b1948225492d1e3e.pdf

Recent SWGDAM Meeting

January 12-14, 2016

- **Main sessions:** Potential QAS revisions discussed (Jocelyn Carlson and members of the QA Committee); SWGDAM guidelines for the processing of sexual assault evidence kits in a laboratory (Amber Carr); review of revised Autosomal STR interpretation guidelines (Joel Sutton and members of the Autosomal STR Interpretation Committee)
- **Committee Work (most of Wednesday)**
- **Roundtable:** Subpopulation corrections (John Buckleton & James Curran), ICMP manufacturer's elimination database (Tom Parsons), DNA from fired cartridge casings (Shawn Montpetit), retrospective DNA review (Todd Bille), Texas Forensic Science Commission (Elizabeth Morris), familial searching (Gary Molina), Qiagen QIAcube differential extractions (Melissa Suddeth)
- **Committee updates:** Autosomal STR Interpretation (Joel Sutton), CODIS (Darrell Oubre), EDMI (Dixie Peters), Next-Gen (John Tonkyn), QA (Jocelyn Carlson), Rapid DNA (Pete Vallone), Y-STR (John Buckleton), SAFER Sexual Assault Kit WG (Amber Carr), Committee of Detail (Shawn Montpetit)
- **Other updates:** ISFG (Walther Parson), NIST Applied Genetics Group (Pete Vallone & Katherine Gettings), OSAC-NCFS-NIST (John Butler), NIJ (Minh Nguyen), DC Laboratory (Jenifer Smith), Legal Issues (Dawn Herkenham)

FBI Quality Assurance Standards (QAS) and OSAC Registry

- The FBI Director is Congressionally mandated by the DNA Identification Act of 1994 (Public Law 103-322) to **set requirements for participation in the National DNA Index System (NDIS)**, which was done through creation of the QAS in 1998/1999 by the DNA Advisory Board (DAB)
 - When the DAB's term expired in 2000, SWGDAM was given responsibility for revising the QAS and accompanying audit documents, which has been done in 2009 and 2011
- However, **SWGDAM and the FBI are not recognized SDOs (Standards Developing Organizations)** nor has the QAS gone through a full SDO-process
- Currently, OSAC has decided that **the QAS will not go through the OSAC Registry Approval process** as it has to be maintained by the FBI (according to Congressional mandate) and does not meet the SDO-process (as defined by the OSAC Quality Infrastructure Committee)
- The **FBI QAS do not prevent the development and implementation of OSAC standards/guidelines** that will complement the quality and integrity of the discipline that is currently viewed as the gold standard of forensic science.

NIST Forensic Science Efforts

Partnership with Department of Justice

National Commission on Forensic Science (NCFS)



*Department of Justice FACA
co-led by NIST
setting policy*

Organization of Scientific Area Committees (OSAC)



*NIST-administered
>540 members of the community
establishing standards and best practices*

NIST Funded Internal Research Programs



*~\$7.5M/year
invested*

NIST Forensic Science Center of Excellence



*CoE: ~\$4M/year invested for
5 years (2015-2020)*

International Symposium on Forensic Science Error Management



432 participants (11 countries)

NIST Research Efforts to Aid Forensic Science

SIX CURRENT FUNDED FOCUS AREAS

1. *Ballistics and Associated Tool Marks*
2. *Digital and Identification Forensics*
3. *Forensic Genetics (DNA)*
4. *Toxins*
5. *Trace*
6. *Statistics*

Applied
Genetics Group

Internal NIST research will be supplemented by a new NIST Forensic Science Center of Excellence (FSCOEE)



NIST Forensic Science Center of Excellence



Kickoff Meeting held
October 26-27, 2015
in Ames, IA

CSAFE will focus on the following objectives:

- Bring together forensic practitioners and expert statisticians to **develop and apply statistical methods** to: latent prints, ballistics, tire marks, footwear, handwriting, bloodstain pattern, tool marks, computer and information systems, mobile devices, network traffic, social media, and GPS
- **Develop**, in collaboration with NIST scientists, **new methods for forensic evidence**
- **Develop new inference techniques that account for various sources of uncertainty**
- **Establish a sound base of interpretation for forensic evidence** in judicial settings
- **Educate and train forensic practitioners, judges and attorneys**, and the next generation of statisticians

Follow-up to Highly Successful First International Symposium on Forensic Science Error Management (July 21-24, 2015)

Proceedings of the International Symposium on Forensic Science Error Management

Held July 21-24, 2015 in Arlington, VA



http://www.nist.gov/director/international_forensics_home.cfm

- ***Proceedings being finalized***
 - plan to have out before Feb 2016
- **Website:**
 - http://www.nist.gov/director/international_forensics_home.cfm
 - **Talk slide PDFs**
(85 available with 2767 slides):
<http://www.nist.gov/director/orals.cfm>
 - **Recorded Keynote and Plenary Talks**
(7 videos):
http://www.nist.gov/director/recorded_symposium_sessions.cfm
- **Discussing potential 2nd meeting in May 2017** (stay tuned)



September 2015 issue

Forensic Science International: Genetics

journal homepage: www.elsevier.com/locate/fsig



U.S. initiatives to strengthen forensic science & international standards in forensic DNA

John M. Butler*

National Institute of Standards and Technology, Gaithersburg, MD, USA

OPEN SOURCE
(freely available)

- This review article covers recent U.S. activities to strengthen forensic science including the formation of the National Commission on Forensic Science and the Organization of Scientific Area Committees
- DNA documentary standards and guidelines from organizations around the world are also included

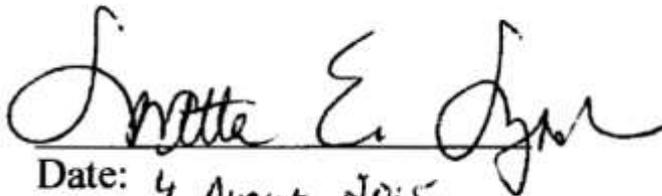
A Renewal MOU Was Recently Signed between DOJ and NIST

and is publicly available on the NCFS website

MEMORANDUM OF UNDERSTANDING BETWEEN THE DEPARTMENT OF JUSTICE AND THE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY IN SUPPORT OF THE NATIONAL COMMISSION ON FORENSIC SCIENCE AND THE ORGANIZATION OF SCIENTIFIC AREA COMMITTEES

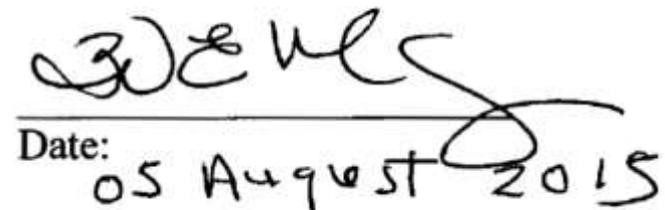
X. Signatures:

For the Department of Justice:



Date: 4 August 2015

For the National Institute of
Standards and Technology:



Date: 05 August 2015

Organization of Scientific Area Committees (OSAC)

Forensic discipline-specific “guidance groups”
administered by NIST



NIST
National Institute of
Standards and Technology
U.S. Department of Commerce

<http://www.nist.gov/forensics/osac/index.cfm>

Organization of Scientific Area Committees (OSAC)

364 active projects

Forensic Science Standards Board (FSSB)

Legal Resource Committee (LRC)

Quality Infrastructure Committee (QIC)

Human Factors Committee (HFC)

Biology/DNA SAC

Chemistry/Instrumental Analysis SAC

Crime Scene/Death Investigation SAC

1 Digital/Multimedia SAC

Physics/Pattern Interpretation SAC

Biological Data Interpretation and Reporting Sub

Biological Methods Sub

Wildlife Forensics Sub

2 Fire Debris and Explosives Sub

1 Geological Materials Sub

Gunshot Residue Sub

8 Materials (Trace) Sub

3 Seized Drugs Sub

4 Toxicology Sub

Anthropology Sub

Disaster Victim Identification Sub

Dogs and Sensors Sub

Fire and Explosion Investigation Sub

Medicolegal Death Investigation Sub

Odontology Sub

Crime Scene Sub

1 Digital Evidence Sub

6 Facial Identification Sub

Speaker Recognition Sub

Video/Imaging Technology and Analysis Sub

Bloodstain Pattern Analysis Sub

Firearms and Toolmarks Sub

Footwear and Tire Sub

Forensic Document Examination Sub

Friction Ridge Sub

Currently 542 total members

14 of 26 are ASTM standards

Added Dec 2015

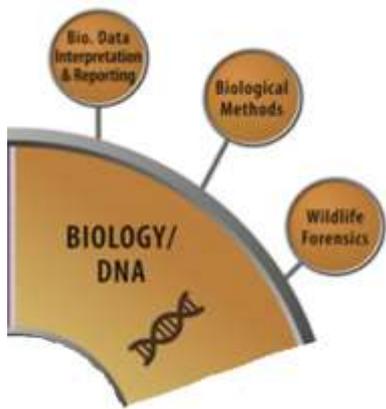
SAC = Scientific Area Committee
Sub = Subcommittee

SAC Biology Membership and Initial Terms (2, 3, or 4 years)

Members (Term)	Role
George Herrin (4)	Chair
Angelo Della Manna (3)	Vice-Chair
DeeDee Hawk (2)	Exec Sec
Kim Murga (2)	SC Chair
Robyn Ragsdale (4)	SC Chair
Kathy Moore (2)	SC Chair

Members (Term)	Role
John Butler (3)	QIC Liaison, SWGDM Liaison
Tom Callaghan (3)	
Robin Cotton (4)	LRC Liaison
Phillip Danielson (4)	HFC Liaison
Bruce Weir (3)	
Simone Gittelson (2)	

First public SAC meeting was held **February 16, 2015 7-10pm** at the AAFS meeting
Monthly conference calls are conducted to get subcommittee updates
 Second public SAC meeting was **October 15, 2015 7:30-8:45am** at the ISHI meeting
Next public SAC meeting will be February 22, 2016 10:15am-12pm at AAFS meeting



Biology/DNA Scientific Area Committee

3 SWGDAM participants



George Herrin
(chair)

Not pictured: Bruce Weir
& Simone Gittelson

SAC Biology/DNA Activity

Task Groups

Terminology (Buel)

Validation/Method (Weitz)

Education/Training (**Kadash**)

Sample Id & Collection (Zervos)

Terminology (Westring)

Statistical Interpretation (Zabell)

Probabilistic Genotyping (**Sutton**)

Software Validation (**Kehl**)

Mixture Interp Verification (Sobieralski/**Montpetit**)

Terminology (Baker/Hoofer)

Standards and Guidelines (O'Brien/Giles)

Report Writing (Trail/Giles)

Validation (Lindquist/Hoofer)

Subcommittees

Biological Methods (Murga)

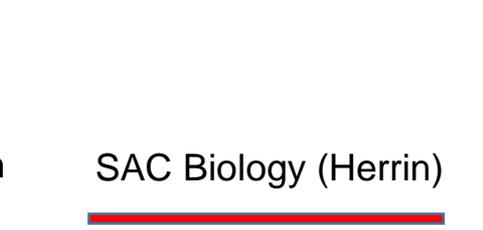
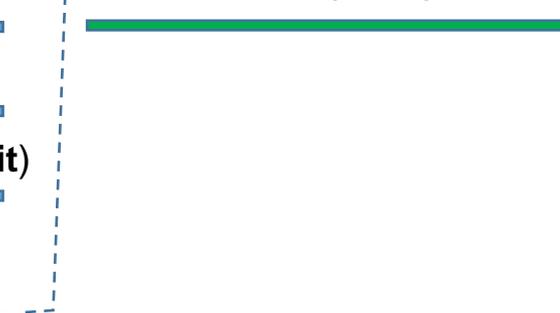
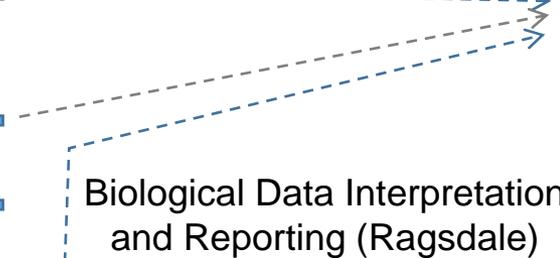
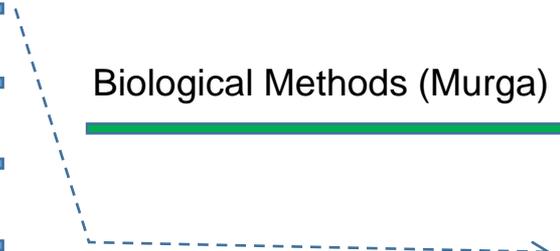
Biological Data Interpretation
and Reporting (Ragsdale)

Wildlife Forensics (Moore)

Biology/DNA Scientific Area Committee

Terminology (**Della Manna**)

SAC Biology (Herrin)



OSAC Forensic Biology Glossary (Terminology) Document Under Review

Standard Forensic Biology / DNA Glossary

November 2015

http://media.wix.com/ugd/4344b0_da25419ba2dd4363bc4e5e8fe7025882.pdf

Interpretation Guidelines for Autosomal STR Typing: http://media.wix.com/ugd/4344b0_61b46a0e1a4c41ccb65f719a533b8e29.pdf

Validation Guidelines for DNA Analysis Methods: http://media.wix.com/ugd/4344b0_cbc27d16dcb64fd88cb36ab2a2a25e4c.pdf

The Biological Evidence Preservation Handbook: Best Practices for Evidence Handlers. 2013. Technical Working Group on Biological Evidence Preservation: <http://www.nist.gov/forensics/upload/NIST-IR-7928.pdf>

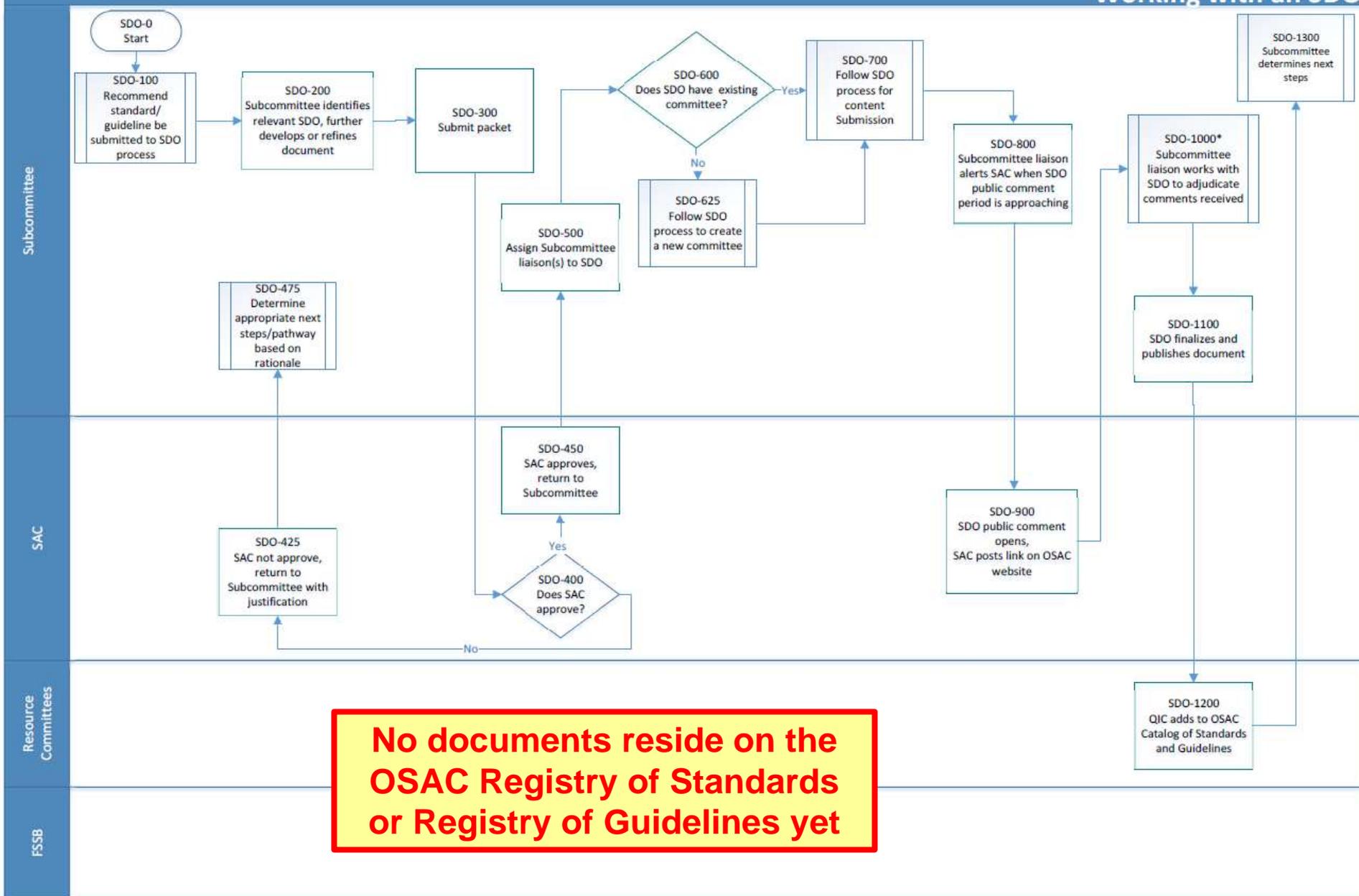
Reference to
SWGDM documents
is provided

Term	Definition	Source	Document
Accredited Laboratory	A DNA laboratory that has received formal recognition that it meets or exceeds a list of standards, including the FBI Director's Quality Assurance Standards, to perform specific tests, by a nonprofit professional association of persons actively involved in forensic science that is nationally recognized within the forensic community in accordance with the provisions of the Federal DNA Identification Act (42 U.S.C. § 14132) or subsequent laws.	QAS 	
Accuracy	The degree of conformity of a measured quantity to its actual (true) value.	QAS; SWGDM	Validation Guidelines for Forensic DNA Analysis Methods
Additional Amplification Cycles	One or more amplification cycles beyond what the laboratory had validated in the Standard Method of its STR kit.	SWGDM - Modified by OSAC terminology	Guidelines for STR Enhanced Detection Methods

>400 definitions distilled
from ~1280 terms collected

OSAC Biology/DNA SAC Summary

- **Regular conference calls (virtual meetings)**
 - SAC and subcommittees each meet at least monthly
 - Task groups meet sometimes multiple times per month
- A public SAC meeting/public comment session was held as part of the ISHI meeting in Grapevine, Texas on October 15, 2015
- The next public SAC meeting is February 22, 2015 as part of the AAFS meeting in Las Vegas, Nevada
- Several documents are close to being completed for submission to a Standards Developing Organization (SDO)
- AAFS is standing up an SDO; the current plan is to use this route for SAC Biology/DNA documents



No documents reside on the OSAC Registry of Standards or Registry of Guidelines yet

OSAC Quality Infrastructure Committee (QIC) has developed worksheets for documenting efforts

OSAC
Technical Merit Worksheet



This worksheet is intended to assist in reviewing a potential standard or guideline to determine its appropriateness for inclusion on the OSAC Registries. Depending upon the nature of the standard or guideline, not all areas will be applicable. Additional factors may be needed for the evaluation of standards relating to observational- and judgment-based practices or human factors such as training, qualifications, research and quality control.

DATE: _____

CHAIR
Name: _____
Affiliation: _____
Email: _____
Phone: _____

OSAC
Harmonization Worksheet



This worksheet must be submitted with your Registry Request Form. The form is intended to assist in the evaluation of potential conflicts with documents currently listed on the OSAC Registries.

DATE: _____

CHAIR
Name: _____
Affiliation: _____
Email: _____
Phone: _____

OSAC
Impact Worksheet



This worksheet must be completed and included with the Registry Request Form if the referenced document is likely to produce a financial, human resource, or other impact on the forensic community.

DATE: _____

CHAIR
Name: _____
Affiliation: _____
Email: _____
Phone: _____

Document Title, Number, and Year: _____

1. Are the purpose and scope of the document likely to produce a financial, human resource, or other impact on the forensic community?
2. Terminology
Are relevant terms, acronyms, or abbreviations defined?
3. Bibliographic Referencing
Does the document contain references to other documents?
4. Quality Control
Does the document describe the process used to develop and maintain the standard or guideline?
5. Is the document a test method or reporting guidelines, method, or procedure?

OSAC
Standard Development Process Worksheet



Complete the following worksheet if the standard or guideline submitted for addition to the OSAC Registry was not developed by a recognized standards development organization (SDO) but might meet the process requirements. Provide all documentation to support the responses as attachments.

DATE: _____ SUBMITTING SUBCOMMITTEE: _____

CHAIR
Name: _____
Affiliation: _____
Email: _____
Phone: _____

TECHNICAL CONTACT (If different than Chair)
Name: _____
Affiliation: _____
Email: _____
Phone: _____

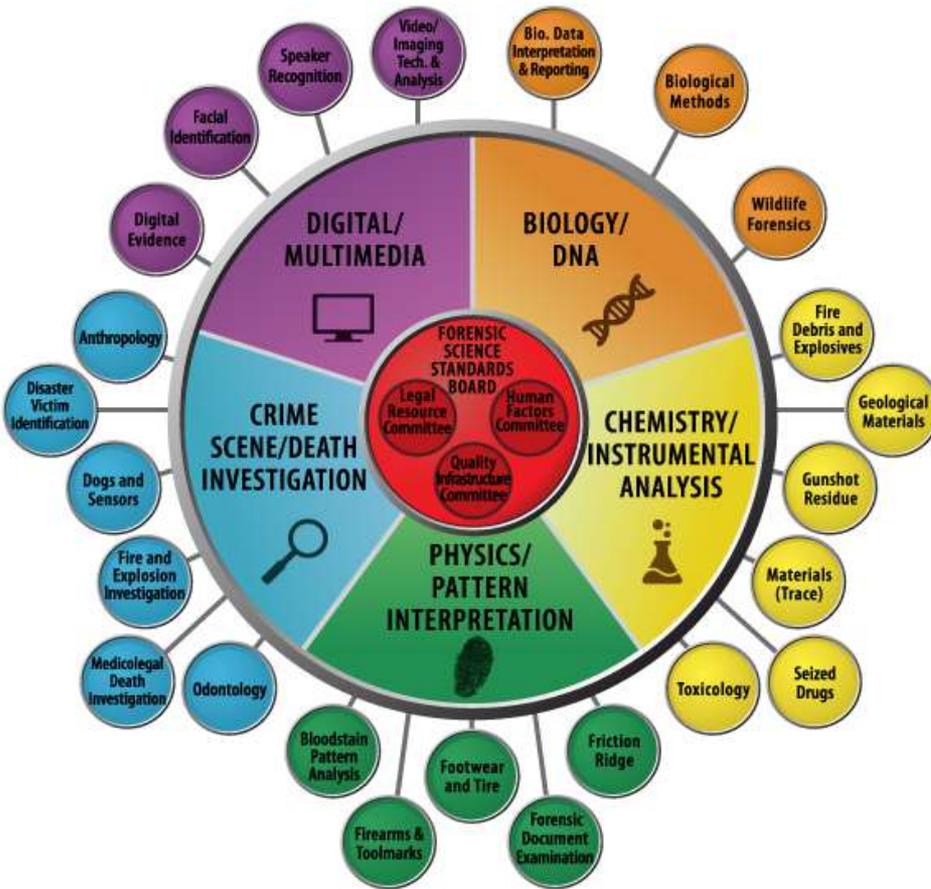
Document Title, Number, and Year: _____

1. Does the document contain any information that is currently listed on the OSAC Registries as opposing techniques or methods?
 Yes
 No (If "No", the form is complete)
2. Name of conflicting or overlapping document:

3. What is the intended use of the standard or guideline, for example, is this standard for forensic scientists?

4. Was a written procedure used to govern the creation of this standard or guideline?
 Yes No (If "No", describe below)

Recent or Upcoming OSAC Events



- **January 25-29, 2016** – Second in-person meeting of OSAC subcommittees (Leesburg, VA)
- **February 22-23, 2016** – Second public meeting with presentations by SAC and subcommittee chairs in Las Vegas, NV as part of AAFS

January 2016 – first posting to OSAC Registry of Approved Standards

OSAC Monthly Newsletter



Issues (to-date)

- August 2015
- Sept 2015
- Oct 2015
- Nov 2015
- Dec 2015
- Jan 2016
- Feb 2016

One of the ways to solicit public comment on standards and guidelines up for consideration on the OSAC Registries

<http://nist.gov/forensics/osac/osac-newsletter.cfm>

Based on current funding
OSAC in-person meetings are on a ~9 month cycle
(January – July/August – April – January ...)

Internal OSAC Meetings

(Leesburg, VA) – January 25-29, 2016

- (Jan 25) FSSB meeting
- (Jan 26) 5 SACs, 3 Resource Committees & several subcommittees
- (Jan 27) full OSAC plenary followed by 24 SCs, 3 RC meetings
- (Jan 28) 24 SCs, 3 RC meetings
- (Jan 29) ½ day 24 SCs

Public OSAC Meetings (at AAFS, Las Vegas, NV)

February 22, 2016 (Monday)

(8 am – 10 am) **Digital/Multimedia SAC**

- Digital Evidence
- Facial Identification
- Video/Imaging Technology and Analysis
- Speaker Recognition

(10:15 am – 12 pm) **Biology/DNA SAC**

- Biological Methods
- Biological Data Interpretation & Reporting
- Wildlife Forensics

(1 pm – 5 pm) **Crime Scene/Death Investigation SAC**

- Anthropology
- Disaster Victim Identification
- Dogs and Sensors
- Fire and Explosion
- Medicolegal Death Investigation
- Odontology

February 23, 2016 (Tuesday)

(8:30 am – 12 pm) **Physics/Pattern Interpretation SAC**

- Bloodstain Pattern Analysis
- Firearms and Toolmarks
- Footwear and Tire
- Forensic Document Examination
- Friction Ridge

(1 pm – 5 pm) **Chemistry/Instrumental Analysis SAC**

- Fire Debris and Explosives
- Geological Materials
- Gunshot Residue
- Materials (Trace)
- Seized Drugs
- Toxicology

5 SAC chairs and 24 subcommittee chairs will present; will be webcast

National Commission on Forensic Science

A Federal Advisory Committee
for the U.S. Department of Justice



U.S. Department of Commerce

<http://www.justice.gov/ncfs>

National Commission on Forensic Science (NCFS)

www.justice.gov/ncfs

Policy-focused

NCFS Leadership

In 2013, the Department of Justice (DOJ) established the National Commission on Forensic Science, in partnership with the National Institute of Standards and Technology (NIST), to enhance the practice and improve the reliability of forensic science. This unique partnership draws upon each agency's core strengths to promote scientific validity, reduce fragmentation, and improve federal coordination of forensic science.

The Commission is co-chaired by Deputy Attorney General James M. Cole and NIST Acting Director and Acting Under Secretary of Commerce for Standards and Technology, Willie E. May. Nelson Santos, Deputy Assistant Administrator for the Office of Forensic Sciences at the Drug Enforcement Administration, and John M. Butler, Special Assistant to the NIST Director for forensic science, serve as vice-chairs. Brette Steele, Senior Advisor on Forensic Science and Senior Counsel to the Deputy Attorney General serves as the Designated Federal Officer and Robin Jones, Consultant within the Department of Justice, serves as Program Manager.

The Commission includes federal, state and local forensic science service providers; research scientists and academics; law enforcement officials; prosecutors, defense attorneys and judges; and other stakeholders from across the country.

GENERAL INFORMATION
NATIONAL COMMISSION ON FORENSIC SCIENCE

CONTACT

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Brette.L.Steele@usdoj.gov

By Phone:
(202) 305-0180

32 voting and 8 *ex-officio* members

Last meeting (8th): Dec 7-8, 2015

Next meeting (9th): March 21-22, 2016



Sally Q. Yates
Deputy Attorney General
DOJ Co-Chair



Willie E. May
Director of NIST
NIST Co-Chair



Nelson A. Santos
Vice-Chair (DOJ)



John M. Butler
Vice-Chair (NIST)

New Commissioners for Second Term

1. **Thomas D. Albright, Ph.D.**, Professor and Conrad T. Prebys Chair, The Salk Institute for Biological Studies, La Jolla, California
2. **Arturo Casadevall, M.D., Ph.D.**, Bloomberg Distinguished Professor and Alfred and Jill Summer Professor and Chair of Molecular Microbiology and Immunology, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, Maryland
3. **Gregory C. Champagne**, Sheriff, St. Charles Parish, Louisiana

Will be looking for a new digital evidence member...

5. **Deirdre M. Daly**, United States Attorney for the District of Connecticut
6. **Sunita Sah, M.D., Ph.D.**, Assistant Professor of Management and Organizations, Johnson Graduate School of Management, Cornell University, Ithaca, New York

Press Release (August 6, 2015): <http://www.justice.gov/opa/pr/departments-justice-and-national-institute-standards-and-technology-name-six-experts-new>

Current NCFS Subcommittees

<http://www.justice.gov/ncfs/subcommittees>

where much of the Commission work occurs...

NCFS Subcommittee	# Commissioners	# Non-Commissioners
1. Accreditation & Proficiency Testing	8	13
2. Human Factors	7	16
3. Interim Solutions	11	2
4. Medicolegal Death Investigation	7	7
5. Reporting & Testimony	13	9
6. Scientific Inquiry & Research	12	5
7. Training on Science & Law	7	5

Most Commissioners are on multiple subcommittees

57 non-Commissioners contributing to the process

Subcommittee products are discussed and voted on by the full Commission prior to being recommended to the Attorney General

Timeline for Commission Activities

**Federal Advisory
Committees exist on a
2-year renewal cycle**

**New Commission
charter signed on
April 23, 2015**

**Includes digital
evidence**

**While we hope that a new
charter will be signed in
April 2017 extending
the NCFS, a new
administration
will begin January 20, 2017
and may have different
priorities**

- Announcement at AAFS 2013 meeting (February 21, 2013)
- Commission charter filed (April 23, 2013)
- Commission membership named (January 10, 2014)

Term 1 (April 23, 2013 – April 23, 2015):

- *First* meeting (February 3-4, 2014)
- *Second* meeting (May 12-13, 2014)
- *Third* meeting (August 26-27, 2014)
- *Fourth* meeting (October 28-29, 2014)
- *Fifth* meeting (January 29-30, 2015)

Term 2 (April 23, 2015 – April 23, 2017):

- *Sixth* meeting (April 30-May 1, 2015)
- *Seventh* meeting (August 10-11, 2015)
- *Eighth* meeting (December 7-8, 2015)
- ***Ninth* meeting (March 21-22, 2016)**
- *Tenth* meeting (June 20-21, 2016)
- *Eleventh* meeting (Sept 12-13, 2016)
- *Twelfth* meeting (January 9-10, 2017)
- *Thirteenth* meeting (April 10-11, 2017)

NCFS Outside Speaker Panel Discussions

Meeting	Topics
1	Background on NRC 2009 report, 2009 census of public labs, & SoFS efforts
2	Ethics and Forensic Science
2, 3	Cognitive Bias and Human Factors (part 1 & part 2)
3	Latent Print Automated Fingerprint Identification System (AFIS) Interoperability
3	Role of Accreditation in Forensic Science
4	Assessing Eyewitness Identification (NRC report)
5	Documentary Standards
5	Judicial Training
5	Accreditation and Certification within the MDI Community
6	Evidence Preservation and Retention
6	OSAC Update and Priority Action Report
6	Disaster Victim Identification within the MDI Community
7	Exploring Issues Related to Proficiency Testing
8	Translation of Scientific Research into Forensic Practice
8	AAAS Forensic Science Assessments: A Quality & Gap Analysis

International Perspectives

Meeting 3: UK Regulator

Meeting 7: Netherlands Register of Court Experts

Designated Federal Official (DFO) for the National Commission on Forensic Science



Andrew J. Bruck

Andrew J. Bruck
Counsel to the Deputy Attorney General
950 Pennsylvania Avenue NW
Washington, DC 20530
Andrew.J.Bruck@usdoj.gov
(202) 305-3481

Subcommittee on Procedures and Operations (SPO) – formerly Bylaws

- **Purpose:** to define/refine process documents and bylaws governing Commission activities
- **SPO Membership:**
 - DFO: Andrew Bruck
 - Vice-Chairs: Nelson Santos & John Butler
 - OSTP representative: Meredith Drosback (replaced Tania Simoncelli)
 - Commission representatives (4):
 - Marilyn Huestis (researcher)
 - Dean Gialamas (practitioner)
 - Pam King (defense attorney → MN district judge)
 - Matt Redle (prosecuting attorney)

Commission Work Products

- The Commission is a Department of Justice Federal Advisory Committee and therefore **only has direct authority to make recommendations to the Attorney General.**

DOJ has promised to respond to NCFS work products within two meetings

- It is hoped that Commission work products will be considered and adopted by other Federal agencies and within state and local jurisdictions.

Voting is conducted electronically with a **two-thirds majority required to pass**



NCFS Work Products Page

The screenshot shows the website for the National Commission on Forensic Science (NCFS) under the Department of Justice. The header includes the Department of Justice logo, the text "THE UNITED STATES DEPARTMENT of JUSTICE", a link to "en ESPAÑOL", social media icons for Twitter, Facebook, YouTube, RSS, and Email, and a search bar. The main navigation menu includes links for HOME, ABOUT, AGENCIES, BUSINESS, RESOURCES, NEWS, CAREERS, and CONTACT. The breadcrumb trail reads "Home » National Commission on Forensic Science". A left sidebar contains a menu with links for National Commission on Forensic Science Home, Members, Meetings, Work Products (highlighted), Subcommittees, Press Room, and Contact the Commission. The main content area features a "WORK PRODUCTS" section with an "Email updates" link highlighted by a red arrow and a yellow callout box that says "Sign up for Email Updates". Below this are links for "Process for the Development of Work Products (PDF)" and "Guidance for the Adjudication of Public Comments (PDF)". A list of topics follows: "Accreditation of Medical Examiner and Coroner Offices | Certification of Medicolegal Death Investigators | Definitions | Discovery | Expert Testimony | Inconsistent Terminology | Scientific Literature in Support of Forensic Science and Practice | Survey of Forensic Capabilities | Universal Accreditation | Submitting or Viewing Written Public Comments". A sub-section titled "ACCREDITATION OF MEDICAL EXAMINER AND CORONER OFFICES" contains three links: "Initial Draft Policy Recommendation on Accreditation and Certification of Medicolegal Death Investigation Personnel Released for Public Comment", "Final Draft Policy Recommendation on Accreditation of Medical Examiner and Coroner Offices as Submitted for Vote", and "Policy Recommendation on Accreditation of Medical Examiner and Coroner Offices as Adopted by the Commission".

<http://www.justice.gov/ncfs/work-products>

NCFS Meetings Page

The screenshot shows the top portion of the Department of Justice website. At the top left is the Department of Justice seal. To its right, the text reads "THE UNITED STATES DEPARTMENT of JUSTICE". Further right, there is a link for "en ESPAÑOL" and social media icons for Twitter, Facebook, YouTube, RSS, and Email. A search bar is located on the far right of the top navigation bar. Below this is a dark navigation bar with links for HOME, ABOUT, AGENCIES, BUSINESS, RESOURCES, NEWS, CAREERS, and CONTACT. The main content area has a breadcrumb trail: "Home » National Commission on Forensic Science". On the left side, there is a vertical menu with links for "National Commission on Forensic Science Home", "Members", "Meetings" (which is expanded to show "Meeting Materials", "Written Public Comments", "Work Products", "Subcommittees", "Press Room", and "Contact the Commission"), "Work Products", "Subcommittees", "Press Room", and "Contact the Commission". The main content area features a "MEETINGS" section with a sub-section for "Email updates" that includes a red arrow pointing to a yellow box with the text "Sign up for Email Updates". Below this is a list of meetings from "Meeting One" to "Meeting Nine". A "MEETING ONE" section is also visible, containing a paragraph of text about the first meeting held on February 3-4, 2014. On the right side, there is a "GENERAL INFORMATION NATIONAL COMMISSION ON FORENSIC SCIENCE" section with a "CONTACT" sub-section listing "Andrew J. Bruck" and his email address and phone number.

<http://www.justice.gov/ncfs/meetings>

NCFS Email Updates - *GovDelivery*



THE UNITED STATES
DEPARTMENT *of* JUSTICE

Email Updates hosted by *govDELIVERY*

Keep Informed with Email Updates

The Department of Justice (DOJ) is pleased to offer a free e-mail subscription service through our contractor GovDelivery. This service allows you to receive notifications by e-mail when new information is available on pages you specify on Department of Justice websites. If you sign up for these automatic updates, you will no longer need to check those pages for changes. You may unsubscribe from this service at any time.

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We Encourage Public Comments

- Individuals wishing to submit written public comment regarding draft work products should do so by going to www.regulations.gov
- Work products are made available to Commissioners and to the general public at least 15 days before the next meeting and public comments can also be provided 15 days after a meeting (**30 days total**)



Initial DRAFT Views Document on Testimony Using the Term Scientific Certainty

Other by DOJ on 04/15/2015

ID: DOJ-LA-2015-0004-0008

Comment Now!

Due May 15, 2015 11:59 PM ET

Open Docket Folder

NCFS Meeting 7 Topics

August 10-11, 2015

- **Subcommittee Reports & Work Product Discussion**
 - **Five final work products were approved**
- Briefing on Ethics and the Special Government Employee
- **Panel on** Exploring Issues Related to Proficiency Testing
 - Speakers: Brady Mills, Christopher Czyryca, Jesse Brown
- **Presentation on** The Netherlands Register of Court Experts: Experiences and Challenges toward a Forensic Science Quality System
 - Speaker: Michael Smithuis

NCFS Meeting 8 Topics

December 7-8, 2015

- **Subcommittee Reports & Work Product Discussion**
 - **Three final work products were approved**
- OSAC Update
 - Speaker: Jeremy Triplet
- **Panel on Translation of Scientific Research into Practice**
 - Speakers: Molly Dix (RTI), Fen Zhao (NSF), Peter Marks (FDA), Jennifer Shieh (NIH)
- **Presentation on AAAS Forensic Science Assessments**
 - Speakers: Mark Frankel and Deborah Runkle

Work Products Adopted by the Commission

1. Survey of Law Enforcement Forensic Units
2. Accreditation of Medical Examiner and Coroner Offices
3. Certification of Medicolegal Death Investigators
4. Scientific Literature in Support of Forensic Science and Practice
5. Inconsistent Terminology
- 6. Universal Accreditation**
7. Forensic Science and Related Terms
8. Automated Fingerprint Identification System (AFIS) Interoperability
9. Root Cause Analysis (RCA) in Forensic Science
10. Pretrial Discovery of Forensic Materials
11. Increasing the Number, Retention, and Quality of Board-Certified Forensic Pathologists
12. Electronic Networking of Medical Examiner and Coroner Offices
13. Documentation, Case Record and Report Contents
14. Ensuring that Forensic Analysis is Based Upon Task-Relevant Information
15. Forensic Science Curriculum Development

DOJ Press Release (December 7, 2015)

JUSTICE NEWS

Department of Justice

Office of Public Affairs

FOR IMMEDIATE RELEASE

Monday, December 7, 2015

Justice Department Announces New Accreditation Policies to Advance Forensic Science

Deputy Attorney General Sally Quillian Yates announced today that the Justice Department will, within the next five years, require department-run forensic labs to obtain and maintain accreditation and require all department prosecutors to use accredited labs to process forensic evidence when practicable. Additionally, the department has decided to use its grant funding mechanisms to encourage other labs around the country to pursue accreditation.

The new policies arose out of recommendations made by the National Commission of Forensic Science (NCFS), which was established to advance the field of forensic science and make suggestions to the Attorney General on how to ensure that reliable and scientifically valid evidence is used when solving crimes. The Attorney General made the decision to implement several of the commission's recommendations last week and the Deputy Attorney General, who serves as co-chair of the NCFS, announced their adoption at a meeting of the commission today.

<http://www.justice.gov/opa/pr/justice-department-announces-new-accreditation-policies-advance-forensic-science>



Office of the Attorney General
Washington, D. C. 20530

November 23, 2015

DEPARTMENT

MEMORANDUM FOR HEADS OF ~~DEPARTMENT~~ COMPONENTS

FROM:

Loretta E. Lynch
Attorney General

A handwritten signature in blue ink that reads "Loretta E. Lynch".

SUBJECT:

Recommendations of the National Commission on Forensic Science
Announcement for NCFS Meeting Eight

Our justice system depends on reliable, scientifically valid evidence. For the past two years, the National Commission on Forensic Science (NCFS) has developed recommendations for how the Department of Justice can strengthen the field of forensic science. The Department is reviewing those recommendations on a rolling basis, and will continue to evaluate proposals as they are approved by the NCFS.

<http://www.justice.gov/opa/file/797541/download>

NCFS Work Products – Drafts were open for public comment (Nov 23 – Dec 22, 2015)

Will be voted on at the March 21-22, 2016 NCFS meeting

1. Proficiency Testing in Forensic Science
2. Critical Steps to Accreditation
3. National Code of Professional Responsibility
4. Transparency of Quality Management System Documents
- 5. Testimony Using the Term “Reasonable Degree of Scientific Certainty”**
6. Funding for Post-Doctoral Projects to Facilitate Translation of Research into Forensic Science Practice
7. Establishing the Foundational Literature within the Forensic Science Disciplines

NCFS Work Products/Topics Under Development

1. Accessibility of Scientific Literature
2. Evaluating the Effectiveness of Scientific Procedures and Practices
- 3. Validation of Test Methods**
4. Role of Accreditation in Forensic Education
5. Training Assessment Tools
6. Training on Notification
7. Assessment of Context Management Systems
8. Checklists to Reduce Bias
9. National Call Center
10. Model Legislation for Medical Examiner and Coroner Jurisdictions
11. Medicolegal Autonomy and Independence
12. Uniform Policies and Procedures for Accreditation Programs
13. Analyst Certification
- 14. Need for Research to Improve Quality of Proficiency Tests**
- 15. Data Collection and Collaboration with Proficiency Test Providers**
16. Accreditation and Digital Evidence
17. Presentation of Expert Testimony
18. Access to Expert Witnesses by Defense
19. Judicial Vouching
20. Notice and Demand Rules
- 21. Probabilistic Statements**
22. Pretrial Discovery
23. Report Content – Case File
24. Evidence Preservation and Retention

NCFS Meeting Dates

- Meeting 8: December 7 – 8, 2015
 - Location: House of Sweden, Washington, DC

FUTURE DATES – LOCATIONS TBD

- Meeting 9: March 21 – 22, 2016
- Meeting 10: June 20 – 21, 2016
- Meeting 11: September 12 – 13, 2016
- Meeting 12: January 9 – 10, 2017
- Meeting 13: April 10 – 11, 2017

CONTINGENT UPON CHARTER RENEWAL

- Meeting 14: July 17 – 18, 2017
- Meeting 15: November 6 – 7, 2017

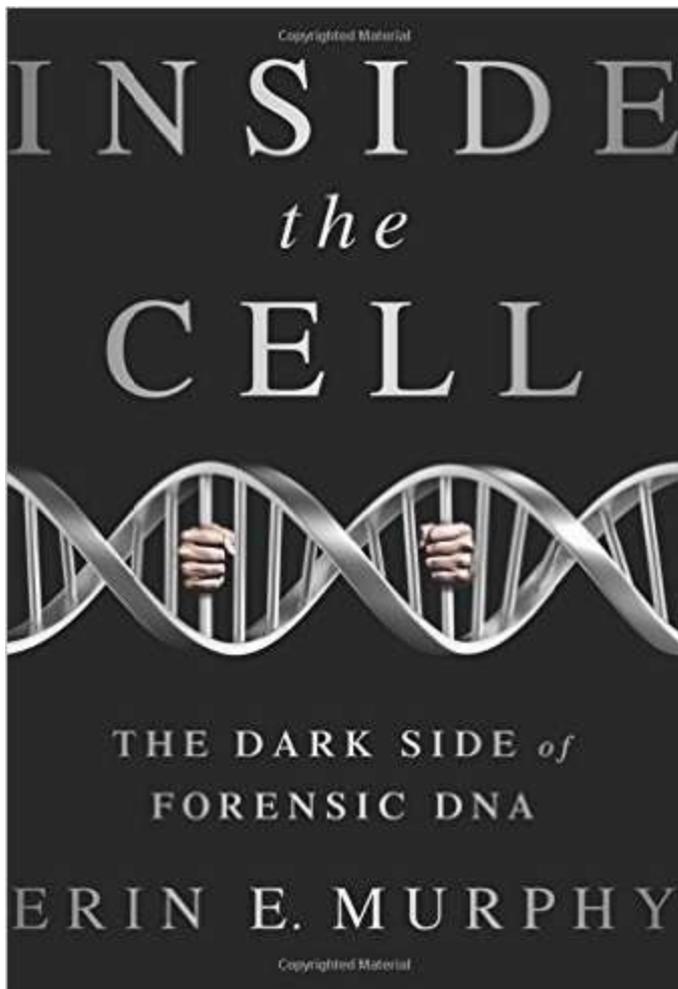
Other Past and Future NIST Activities

FSI Genetics Special Issue (Vol. 18, September 2015)

Author(s)	Article Title (Invited Review Articles)
John Butler	U.S. initiatives to strengthen forensic science & international standards in forensic DNA
Titia Sijen	Molecular approaches for forensic cell type identification : on mRNA, miRNA, DNA methylation, and microbial markers
Manfred Kayser	Forensic DNA phenotyping : predicting human appearance from crime scene material for investigative purposes
Chris Phillips	Forensic genetic analysis of bio-geographical ancestry
Robin Cotton & Matthew Fisher	Properties of sperm and seminal fluid , informed by research on reproduction and contraception
Claus Børsting & Niels Morling	<u>Next generation sequencing</u> and its applications in forensic genetics
Erica Romsos & Peter Vallone	Rapid PCR of STR markers : applications to human identification
Peter Gill et al.	Genotyping and interpretation of STR-DNA : low-template, mixtures and database matches – 20 years of research and development
K. Gettings et al.	<u>STR allele sequence variation</u> : current knowledge and future issues
Just, Irwin, Parson	Mitochondrial DNA heteroplasmy in the emerging field of <u>massively parallel sequencing</u>
Toni Diegoli	Forensic typing of short tandem repeat markers on the X and Y chromosomes
Ogden & Linacre	Wildlife forensic science : a review of genetic geographic origin assignment
Maria Brión et al.	<u>Massive parallel sequencing</u> applied to the molecular autopsy in sudden cardiac death in the young

New Book by Law Professor Erin Murphy

400 pages



(Nation Books, Oct 2015)

PART I	
<u>WHEN A MATCH ISN'T A MATCH: HOW DNA TESTING GOES WRONG</u>	
1. The Basics: DNA Typing for Dummies	3
2. The Dirty Business of Crime: The Challenge of Forensic Samples	18
3. Phantom Suspects: The Prevalence of DNA Transfer	29
4. Contamination, Mistake, and Outright Fraud	48
5. Single Cell Samples: Low Copy Number DNA	74
PART II	
<u>MISUNDERSTOOD MATCHES: HOW DNA STATISTICS MISLEAD</u>	
6. Brave New World of Probabilities	85
7. Dangers of the Database: Cold Hits and Coincidental Matches	106
8.	
9.	
PART IV	
<u>BUILDING A BETTER DNA POLICY</u>	
16. The Road to Reform: Efficiency, Accountability, Accuracy, Privacy, and Equality	265
IC	<i>Conclusion</i> 311
II	<i>Acknowledgments</i> 313
I2	<i>Glossary</i> 315
I3	<i>Appendix: The Mechanics of DNA Testing</i> 321
I4	<i>Notes</i> 335
I5	<i>Index</i> 373

The Diane Rehm Show

(in NPR studio on Dec 16, 2015)

John M. Butler
NIST

Daniele Podini
GWU Forensic Science Program

Also on air via phone or Skype
Erin Murphy (NYU School of Law)
Mitch Morrissey (Denver DA)

<https://thedianerehmshow.org/shows/2015-12-16/new-questions-about-the-use-of-forensic-dna> (listen to broadcast or read transcript)

AAFS 2016 Workshop on Forensic Science Literature



W1: Information Does Exist Beyond the
First Page of Your Google® Search!
American Academy of Forensic Sciences
Las Vegas, NV (February 22, 2016)



**Information Does Exist Beyond the
First Page of Your Google® Search!**
Tools and Strategies for Forensic Science
Literature Searching and Use

Chair: John M. Butler
Co-Chair: Matthew R. Wood



Transformation: Embracing Change

AAFS
2016
Plenary
Session

An International Panel Discussion on the Impact of Recent Forensic Science Initiatives and the Response of the Global Community

NCFS Co-Chair



Sally Q. Yates, JD
U.S. Department
of Justice
Washington, DC

Plenary Program Speakers



Gillian Tully, PhD
Forensic Science
Regulator,
UK Home Office
UNITED KINGDOM



Alastair Ross, AM
National Institute of
Forensic Science,
Retired
AUSTRALIA



Reinout Woittiez, PhD
Netherlands
Forensic Institute
NETHERLANDS

NCFS Co-Chair



Willie E. May, PhD
National Institute of
Standards and
Technology
Gaithersburg, MD



Victor W. Weedn, MD, JD
AAFS President
George Washington University
Department of Forensic Sciences
Washington, DC



Moderator:
John M. Butler, PhD
NIST

NCFS Vice-Chair

Talk Planned for AAFS 2016



LW1: Last Word Society
American Academy of Forensic Sciences
Las Vegas, NV (February 25, 2016)



The Best Forensic Scientist You've Never Heard Of

Kristen M. Frederick-Frost, PhD

Robert M. Thompson, BS

John M. Butler, PhD



Dr. Wilmer Souder and the National Bureau of Standards Identification Laboratory (1935)

Photo taken April 11, 1935
(rediscovered August 5, 2015 within
National Archives NBS collections)



Reader's Digest July 1951 article

pp. 118-120

When no one else can solve a mystery, Government heads put in a call for Dr. Souder

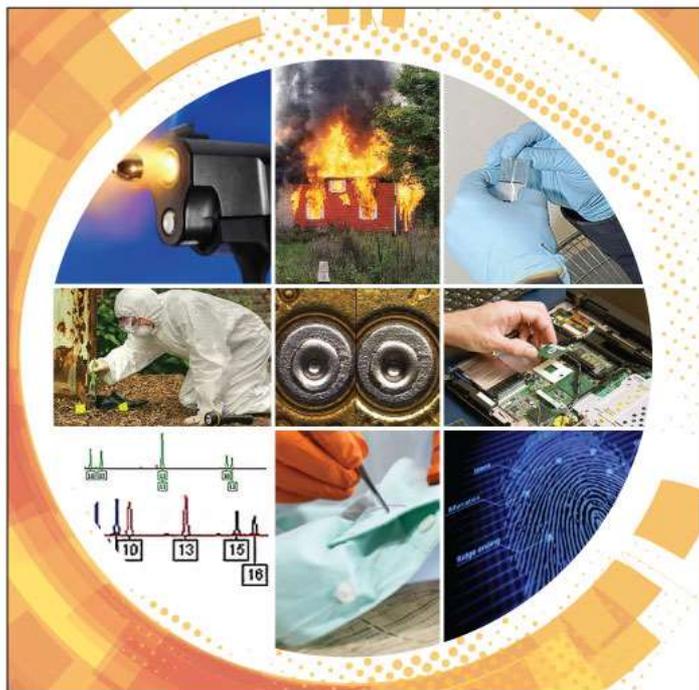


Washington's Detective X

Condensed from This Week Magazine

Emile C. Schurmacher

Biannual Conference to Showcase NIST Research



FORENSICS @ NIST

Previous Meetings:

November 28-30, 2012 at NIST

December 3-4, 2014 at NIST

Next Meeting:

November 8-9, 2016

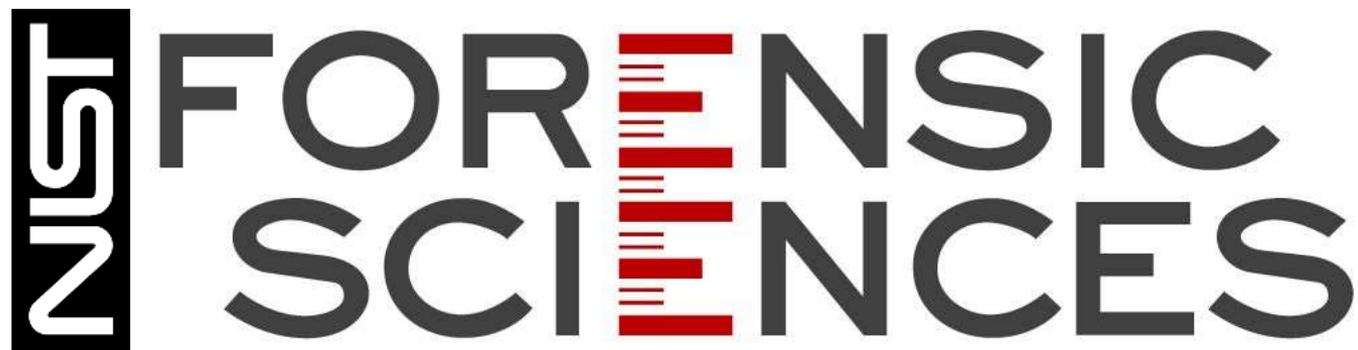
Gaithersburg, MD

<http://www.nist.gov/oles/forensics-2012.cfm>

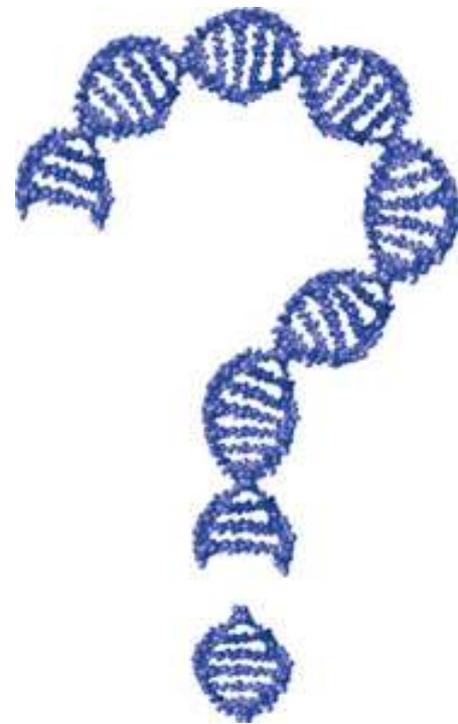
<http://www.nist.gov/forensics/forensics-at-nist-2014.cfm>

National Commission on Forensic Science (NCFS):
www.justice.gov/ncfs

Organization of Scientific Area Committees (OSAC):
www.nist.gov/forensics/osac/index.cfm



www.nist.gov/forensics



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